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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/800,246

03/05/2001

Ronald P. Luijten

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05/03/2005

Anne Vachon Dougherty
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EXAMINER

PHUNKULH, BOB A

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,246

Applicant(s)

LUIJTEN ET AL.

Examiner

Bob A. Phunkulh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,9 and 11-20 is/are rejected.
- 7) ☒ Claim(s) 2,7 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is in response to applicant's 12/14/2004 amendment(s)/response(s) in the application of **LUIJTEN et al.** for "**SWITCHING DEVICE AND METHOD FOR CONTROLLING THE ROUTING OF DATA PACKETS**" filed 03/05/2001. The amendments/response to the claims have been entered. No claims have been canceled. No claims have been added. Claims 1-20 are now pending.

Claim Objections

Claims 11 and 19 are objected to because of the following informalities: claims 11 and 19 contains the same subject matters. The applicant is advised either cancelled one claim or amend the claims to differentiate the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 6, it is not clear what it meant by "the data packets outgoing from the output ports via said switch adapters" as cited the claim i.e. the output ports of the switch adapters?

Regarding claims 15, 17, the claimed subject matter "the grant information is communicated to the switch adapters by inserting it into the data packets" is vague and indefinite i.e. as shown in figure 1, the grant information is provided to the plurality of adapters by the controller C 25. It is not clear what it meant by the grant information is "inserting it into the data packets" since the incoming packets are already stored in the input buffers.

Regarding claim 16, it is not clear what it meant by "communicating said grant information with said data packets" since the grant information is generated by the congestion controller associated with the output ports and the information is signals to the switch adapters (see claim 9).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-6, 9, 11-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lyon (US 6,721,273).

Regarding claim 1, Lyon discloses a switching device comprising:

a plurality of input ports each being connectable to a corresponding switch adapter (input ports as shown in arrow connectable to the corresponding switch input port (1-M), see figure 1) ;

a plurality of output ports (output ports 16-16n, see figure 1);

at least one switch controller for controlling the routing of incoming data packets from said input ports to said output ports (traffic flow controller 100, see figures 1 and 2);

a congestion controller associated with each of said output ports, each of said congestion controllers being adapted to generate grant information to indicate whether said switch adapters can send a data packet to the associated output port (each output port includes a scheduler for generating grant information, col. 4 lines 13-25); and

a data packet access controller associated with each of said input ports, each of said data packet access controllers being adapted to mark as non-compliant any packet which is erroneously sent by said switch adapters (input port includes a forwarder, drop element 42 for examining the loss and emission priority (non-compliant) of each cell it receive and discarding the cell if it as an emission and loss priority that matches (marking) the emission and drop priorities contained in the drop signal, see col. 7 lines 1-18).

Regarding claim 3, Lyon discloses each output port comprises an buffer and means for determining a filling degree for said output buffer and wherein the congestion controller is assigned to an output buffer at the output port based on one of the overflow of the buffer filling degree over a first threshold and underflow of the buffer filling degree under a second threshold (see claim 24, and figure 3).

Regarding claim 4, Lyon discloses the grant information comprises one or more bits per output port (see col. 6 lines 3-9).

Regarding claim 5, Lyon discloses the grant information of all output ports of the switching device is communicable to each switch adapter (the grant information generate by output ports 1-n is communicable to each adapter via the controller 100, see figures 1-3).

Regarding claims 6, Lyon discloses the data packets outgoing from the output ports via said switch adapters comprise the grant information (the controller generates flow control messages in response to the output port messages from the outputs to the input ports, see figures 2-6).

Regarding claim 9, Lyon disclose a method of controlling the routing of data packets through a switching device having a plurality of input ports and a plurality of output ports, each of said input ports being connectable to a corresponding switch

adapter, and having at least one switch controller for controlling the routing of incoming data packets from said input ports to said output ports, comprising the steps of:

generating, by a congestion controller associated with each of the output ports, grant information which signals whether the switch adapters are allowed to send a data packet to the associated output port (each output port includes a scheduler for generating grant information, col. 4 lines 13-25); and

marking as non-compliant any data packet which is erroneously sent by the switch adapters (input port includes a forwarder, drop element 42 for examining the loss and emission priority (non-compliant) of each cell it receive and discarding the cell if it as an emission and loss priority that matches (marking) the emission and drop priorities contained in the drop signal, see col. 7 lines 1-18).

Regarding claim 11, Lyon discloses the grant information is determined by the relation of the buffer filling degree of an output buffer at the output port to one of a first threshold and a second threshold (see claim 24, and figure 3).

Regarding claim 12, Lyon discloses the grant information is generated in form of a grant bit per output port (see col. 6 lines 3-9).

Regarding claim 13, Lyon discloses the grant information for all output ports of the switching device is communicated to each switch adapter (the grant information generate by output ports 1-n is communicable to each adapter via the controller 100,

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see figures 1-3).

Regarding claim 14, Lyon discloses the grant information for all output ports of the switching device is provided in form of a bit map (see col. 6 lines 3-9).

Regarding claims 15-18, Lyon discloses communicating said grant information with said data packets (see col. 2 line 30-37).

Regarding claim 19, Lyon discloses the grant information is determined by the relation of the buffer filling degree of an output buffer at the output port to one of a first threshold and a second threshold (see claim 24, and figure 3).

Regarding claim 20, Lyon discloses the grant information for all output ports of the switching device is communicated to each switch adapter (the grant information generate by output ports 1-n is communicable to each adapter via the controller 100, see figures 1-3).

Allowable Subject Matter

Claims 2, 7-8, 10, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

U.S. Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Chau Nguyen**, can be reach on **(571) 272-3126**. The fax phone number for this group is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh

A handwritten signature in black ink, appearing to read 'Bob A. Phunkulh', written over a horizontal line.

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May 2, 2005